What is claimed is:

1.   A backup system for backing up a shared medium shared by a plurality of computers, comprising:

       a copy device copying a plurality of unit areas of the sharing medium in the backup medium as a batch; and

       a control device managing write data that each of the plurality of computers writes in the sharing medium and reflecting the write data of each computer on the sharing medium at a time of a backup process.

2   The backup system according to claim 1, wherein the copy device disperses required copy processes to be performed by the plurality of computers.

3.   The backup system according to claim 1 further comprising an area management device controlling to access a unit area of the backup medium instead of a corresponding unit area of the sharing medium, at a time of restoring the sharing medium.

4   The backup system according to claim 1 further comprising:

       a buffer device being accessible by the plurality

of computers; and

a control device loading data of a required unit area into the buffer device from the backup medium at a time of restoring the sharing medium.

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5. The backup system according to claim 4 further comprising an area management device presenting the data of the unit area loaded into the buffer device, to a computer that is not connected with the backup medium.

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6. A backup system for backing up a sharing medium shared by a plurality of computers, comprising:

a log management device, when any of the plurality of computers accesses the sharing medium, managing original data before an access occurs as a log, and forming an entire log by gathering logs of two or more computers; and

a formation device forming data at a backup start point using the entire log.

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7. The backup system according to claim 6 further comprising a temporary log storage device temporarily storing each log of the plurality of computers, wherein the log management device edits each log stored in the temporary log storage device and forms the entire log.

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8.   The backup system according to claim 6 wherein when any of the plurality of computers accesses the sharing medium, the log management device receives an access notice from the computer that have accessed the sharing medium, and stores a log of the computer, thereby forming the entire log.

9.   The backup system according to claim 6 further comprising a backup storage device storing backup data of the sharing medium, wherein the log management device stores the entire log in the backup storage device.

10.   The backup system according to claim 6 further comprising a backup storage device storing backup data of the sharing medium and a log storage device storing the entire log.

11.   The backup system according to claim 6 further comprising a backup storage device storing backup data of the sharing medium, wherein the log management device writes the entire log over the backup data.

12.   The backup system according to claim 6 further comprising a log storage device storing a log managed

by the log management device and address information of backup data over which a log is written, wherein the formation device writes a log over a corresponding backup data based on the address information.

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13.   The backup system according to claim 6 wherein in a case that the entire log is not written over backup data of the sharing medium, the formation device referrers to the entire log first, and the backup data

10   later if necessary.

14.   A backup system for backing up a sharing medium shared by a plurality of computers:

a group management device setting a group of files stored in the sharing medium and listing unit areas

15   occupied by files included in the group; and

a copy device copying the plurality of listed unit areas in the backup medium as a batch.

20   15.   The backup system according to claim 14 wherein the group management device sets the group in units of directories.

16.   The backup system according to claim 14 wherein

25   the group management device excludes a specific file

included in the group from the group.

17.   The backup system according to claim 14 wherein the group management device sets a plurality of groups, and the copy device copies unit areas of each group in the backup medium with different schedules.

18.   The backup system according to claim 14 wherein the group management device permits one file to belong to a plurality of groups.

19.   A backup system for backing up a storage medium storing files to be accessed by a computer, comprising:

      an area management device determining whether a unit area is used for each unit area of the storage medium and listing a plurality of used unit areas; and
      a copy device copying the listed unit areas in the backup medium as a batch.

20.   A backup system for backing up a storage medium storing files accessed by a computer, comprising:
      an area management device listing a plurality of unit areas changed after a previous backup process among unit areas of the storage medium, as a difference; and

a copy device copying the listed unit areas in the backup medium as a batch, as incremental backup data.

21.   The backup system according to claim 20 further comprising a merge device merging two or more pieces of backup data for each unit area, among a plurality of pieces of backup data including entire backup data and the incremental backup data.

22.   The backup system according to claim 20 further comprising a change device changing a start time point of listing the difference.

23.   The backup system according to claim 20 further comprising a management device managing a plurality of pieces of backup data including entire backup data and the incremental backup data in a formation order, and tracing back the plurality of pieces of backup data to be referred to at a time of restoring the storage medium, if necessary.

24.   A computer-readable recording medium recording a program for a computer to back up a sharing medium shared by a plurality of computers, the program enabling the computer to perform:

managing write data that each of the plurality of computers writes in the sharing medium;

reflecting write data of each computer on the sharing medium at a backup process; and

5   copying a plurality of unit areas of the sharing medium in a backup medium as a batch.

25.   A computer-readable recording medium recording a program for a computer to back up a sharing medium shared

10   by a plurality of computers, the program enabling the computer to perform:

managing, when any of the plurality of computers accesses the sharing medium, original data before an access occurs as a log,

15   forming an entire log by gathering logs of two or more computers; and

forming data at a backup start point using the entire log.

20   26.   A computer-readable recording medium recording a program for a computer to back up a sharing medium shared by a plurality of computers, the program enabling the computer to perform:

setting a group of files stored in the sharing

25   medium;

listing a plurality of unit areas occupied by files included in the group; and

copying the listed unit areas in the backup medium as a batch.

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27.   A computer-readable recording medium recording a program for a backup computer to back up a storage medium accessed by a computer, the program enabling the backup computer to perform:

10   determining whether a unit area is used for each unit area of the storage medium;

listing a plurality of used unit areas; and

copying the listed unit areas in the backup medium as a batch.

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28.   A computer readable record medium recording a program for a backup computer to back up a storage medium accessed by a computer, the program enabling the backup computer to perform:

20   listing a plurality of unit areas changed after a previous backup process among unit areas of the storage medium, as a difference; and

copying the listed unit areas in the backup medium as a batch, as incremental backup data.

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29. A backup method for backing up a sharing medium shared by a plurality of computers, comprising:

managing write data which each of the plurality of computers writes in the sharing medium;

5   reflecting write data of each computer on the sharing medium at a backup process; and

copying a plurality of unit areas of the sharing medium in a backup medium as a batch.

10   30. A backup method for backing up a sharing medium shared by a plurality of computers, comprising:

managing, when any of the plurality of computers accesses the sharing medium, original data before an access occurs as a log;

15   forming an entire log by gathering logs of two or more computers; and

forming data at a backup start point using the entire log.

20   31. A backup method for backing up a sharing medium shared by a plurality of computers, comprising:

setting a group of files stored in the sharing medium;

listing a plurality of unit areas occupied by files

25   included in the group; and

copying the listed unit areas in the backup medium as a batch.

32.　A backup method for backing up a storage medium accessed by a computer, comprising:

determining whether a unit area is used for each unit area of the storage medium;

listing a plurality of used unit areas; and

copying the listed unit areas in the backup medium as a batch.

33.　A backup method for backing up a storage medium accessed by a computer, comprising:

listing a plurality of unit areas changed after a previous backup process among unit areas of the storage medium, as a difference; and

copying the listed unit areas in the backup medium as a batch, as incremental backup data.

34.　A backup system for backing up a sharing medium shared by a plurality of computers, comprising:

copy means for copying a plurality of unit areas of the sharing medium in a backup medium as a batch; and

control means for managing write data which each

of the plurality of computers writes in the sharing medium
and reflecting write data of each computer on the sharing
medium at a time of a backup process.

5 35. A backup system for backing up a sharing medium
shared by a plurality of computers, comprising:

log management means for managing, when any of the
plurality of computers accesses the sharing medium,
original data before an access occurs as a log and forming
10 an entire log by gathering logs of two or more computers;
and

formation means for forming data at a start point
of a backup process using the entire log.

15 36. A backup system for backing up a sharing medium
shared by a plurality of computers, comprising:

group management means for setting a group of files
stored in the sharing medium and listing a plurality
of unit areas occupied by files included in the group;
20 and

copy means for copying the listed unit areas in
the backup medium as a batch.

37. A backup system for backing up a storage medium
25 storing files accessed by a computer, comprising:

area management means for determining whether a unit area is used for each unit area of the storage medium and listing a plurality of used unit areas; and

a copy means for copying the listed unit areas in the backup medium as a batch.

38. A backup system for backing up a storage medium for storing files accessed by a computer, comprising:

area management means for listing a plurality of unit areas changed after a previous backup process among unit areas of the storage medium, as a difference; and

copy means for copying the listed unit areas in the backup medium as a batch, as incremental backup data.

39. A propagation signal for propagating a program to a computer, the program enabling the computer to perform:

managing write data that each of the plurality of computers writes in the sharing medium;

reflecting write data of each computer on the sharing medium at a backup process; and

copying a plurality of unit areas of the sharing medium in a backup medium as a batch.

40. A propagation signal for propagating a program to a computer to back up a sharing medium shared by a plurality

of computers, the program enabling the computer to perform:

managing, when any of the plurality of computers accesses the sharing medium, original data before an access occurs as a log,

forming an entire log by gathering logs of two or more computers; and

forming data at a backup start point using the entire log.

41.   A propagation signal for propagating a program to a computer to back up a sharing medium shared by a plurality of computers, the program enabling the computer to perform:

setting a group of files stored in the sharing medium;

listing a plurality of unit areas occupied by files included in the group; and

copying the listed unit areas in the backup medium as a batch.

42.   A propagation signal for propagating a program to a backup computer to back up a storage medium accessed by a computer, the program enabling the backup computer to perform:

determining whether a unit area is used for each
unit area of the storage medium;

listing a plurality of used unit areas; and

copying the listed unit areas in the backup medium

5   as a batch.

43.   A propagation signal for propagating a program to
a backup computer to back up a storage medium accessed
by a computer, the program enabling the backup computer

10   to perform:

listing a plurality of unit areas changed after
a previous backup process among unit areas of the storage
medium, as a difference; and

copying the listed unit areas in the backup medium

15   as a batch, as incremental backup data.